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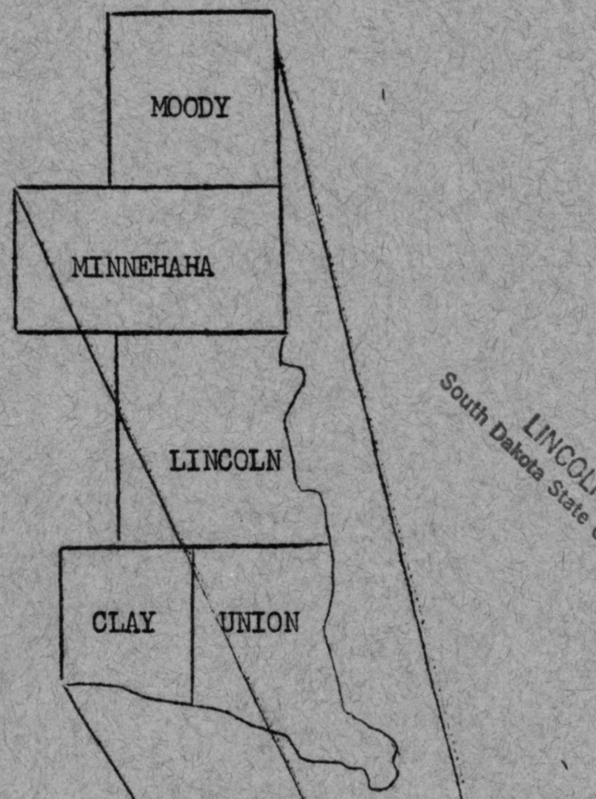
Southeastern South Dakota Farm Record Summary 1952 Tenth Annual Report

Allen R. Clark

1952

TENTH ANNUAL REPORT

southeastern south dakota farm record summary



33 FARMS

Agricultural Economics Pamphlet No. 48
August 1953

Agricultural Experiment Station
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South Dakota State College

Selected List of Agricultural Economics Pamphlets in Print

July 1954

Pamphlet No.		
P 24a	**Types of Farming Manual.** C. R. Hoglund	December 1947
P 31	Financing Farm Land Sales in South Dakota. Gabriel Lundy and Ray F. Pengra	April 1951
P 32	Resales of Farm Land in South Dakota. Gabriel Lundy and Ray F. Pengra	May 1951
P 35	How Much Do Farmers Pay for Custom Work? J. Harvey Glover	June 1951
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P 39	Estimated Feed Requirements for Livestock and Poultry Sigurd Stangeland	May 1952
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P 41	Summary of Water Law Principles and Basic Suggestions for Revising the South Dakota Water Laws. Kenneth Raschke and Kris Kristjanson	October 1952
P 43	Farm Labor, Power and Machinery Performance for Selected Operations Under Dryland and Irrigated Conditions in Central S. D. James Ulvilden. Rev.	August 1953
P 46	Some Local Impacts of Reservoirs in South Dakota	June 1953
P 47	Achieving Farm Ownership in S. D. Through the Farm Ownership Program of the Farmers Home Administration. Canute M. Johnson	July 1953
P 49	Farm Land Market Trends in South Dakota 1941-1952. Ray F. Pengra and Gabriel Lundy	December 1953
P 50	Agricultural Production Trends in S. D. - Farm Output Robert J. Antonides	January 1954
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ABOUT THIS REPORT

This is the tenth annual report of the farm record study in Southeastern South Dakota which was started by the Experiment Station in 1943. This report includes farm records from the following counties: Moody, Minnehaha, Lincoln, Clay and Union.

Farmers cooperating in the study kept records of their farm expenses and receipts, beginning and ending inventories, crop and livestock production, and farm produce used in the household. Some supplemental information on management practices, crop varieties, family and hired labor, is gathered when the books are closed at the end of the year.

TENTH ANNUAL REPORT OF THE SOUTHEASTERN SOUTH DAKOTA RECORDS PROJECT, 1952

Prepared by Allen R. Clark

FARM EARNINGS BELOW 1951 AVERAGE

Farm earnings were lower in southeastern South Dakota in 1952 than in 1951. Farm accounts kept by 33 selected farmers in the southeastern area of South Dakota indicate that the farmer's labor earnings in 1952 were considerably below the 1951 level. The 1951 level was considerably below the average for the preceeding five years.

For their labor and management these farmers received on the average $1,181 when full credit is given for meat, eggs, milk, and other products used by their families. This compares with $1,537 in 1951.

In addition to their cash expenses these farmers were charged 5 per cent interest on land, buildings, machinery, and livestock investments. Also included was a charge of $150 per month for unpaid family labor.

If the farmer owned all his land and equipment, he received these non-cash expenses as income. But many farmers had to pay part or all of this as rent as use of land. Others may have had to pay interest on money borrowed with which they bought their machinery and livestock or with which they hired additional power equipment or labor.

LOW INCOME DUE TO PRICE SQUEEZE

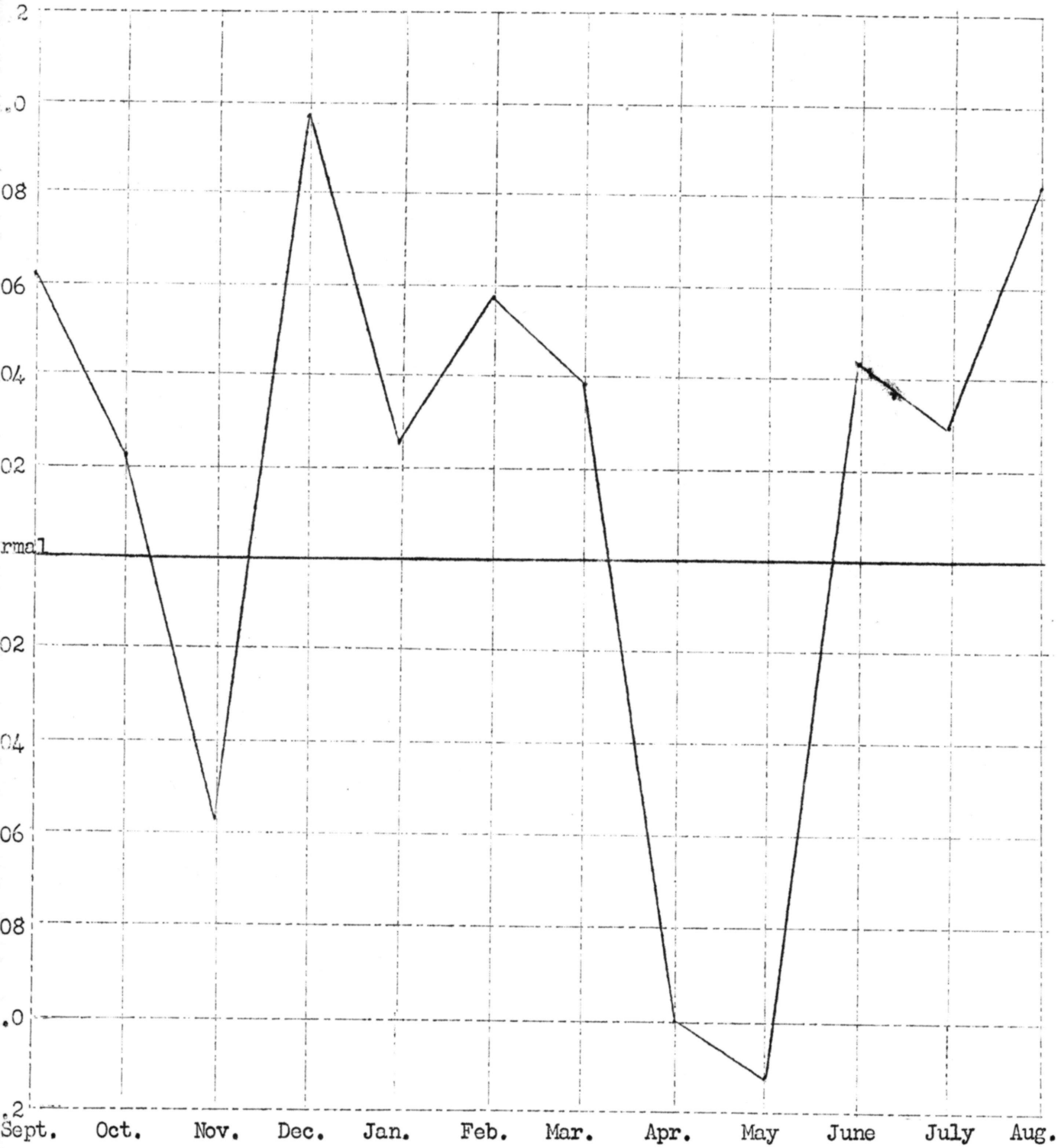
In 1952 the farmers were still feeling the effects of the price squeeze which started in 1951; while farm receipt prices were still relatively high prices paid by farmers has increased considerably. This brings a narrowing margin to farmers and makes it extremely difficult to show a large profit.

VARIABLE TEMPERATURES IN 1952

An interesting feature of the 1952 weather was the extreme variation in temperatures. For the period September 1951 through January 1952 the temperatures averaged below normal in each month. February 1952 warmed up till it was approximately 7 degrees warmer than average, but March came back with 6½ degrees below average, April warmed up slightly but was 1.9 degrees above average, but May again was .2 below. Then through June and July the temperature was slightly above average and in August we had the very unusual situation of the month temperature being exactly the average for the month of August. When we combine this odd temperature pattern with a rainfall pattern in which during September and October we have more than normal rainfall, but in November falling to .58 below average. Then we turn into an above average from December through March, below average in April and May by approximately 1 inch and the remainder being slightly above average rainfall. This is an interesting sort of a combination. We had periods with below average temperature and above average rainfall through much of our year and when we did hit a period of below average rainfall we had it approximately average in temperature, it makes our year rather quandary as to whether it should be a good growing season or a bad one by pure statistics. Most of us remember 1951-52 growing season as a pretty fair year.

INVENTORIES

The inventory picture when held at constant prices becomes rather an interesting picture. In Table 2 you will find a summary of farm inventories for 1952 showing the average of all 33 farms with an average of ten most profitable and ten least profitable. The overall inventory picture



1951-52 Precipitation Compared to Normal Precipitation

Chart 1.

shows that on the average the farmers carried a little less inventory in 1952 than they did in 1951, but the ten most profitable were carrying more inventory in '53 than they carried in '52, while the ten least profitable were carrying slightly lower inventories in 1951. I think this can be partly explained in our method of holding inventories are as constant. By the very fact that the fellow did not sell his cattle and to a lesser extent his hogs and he was credited with making more money than he actually made. Our inventory has been held constant over the last few years in an attempt to show the actual situations of the farms and with the hope that perhaps our farm prices would not vary too greatly from what we had during these two or three years. It begins to appear that if this project is continued there will have to be a re-evaluation of inventories in order to show a reasonable picture of what has gone on.

The work unit standards used in this report are shown in Table 1.

Table 1

Crops			Livestock		
Item	Per	No. of work units	Item	Per	No. of work units
Corn, grain	Acre	1.0	Milk Cows	Cow	14.0
Corn, hogged off	"	.6	Other dairy cattle	A.U.	4.0
Corn & cane silage	"	1.5	Beef Cows	Cow	4.0
Sorghum	"	1.0	Other beef cattle	A.U.	4.0
Soybeans	"	1.0	Bulls	Head	4.0
Potatoes	"	4.0	Litter	Litter	4.0
Small Grain	"	.7	Other Hogs	Head	.5
Alfalfa Hay	"	1.0	Ewes	Head	.5
Other Tame Hay	"	.7	Other Sheep	Head	.2
Wild Hay	"	.5	Hens	100	20.0
Annual Pasture	"	.3	Chickens raised	100	4.0

DEFINITIONS OF TERMS AND MEASURES USED

1. Operator's labor earnings - is the measure of financial success used in this report. It is a measure of the relative financial success of a farmer and represents the returns for his year's work (including family living from the farm), above all farm expenses, and a deduction

for the value of unpaid family labor and an interest charge for the use of farm capital.

2. Productive man work units - is a measure of size of business used in this report. A work unit represents the amount of work that a farm worker can do in a 10-hour day working at average efficiency. For example, it requires about 10 hours of man labor to produce an acre of corn and 140 hours to care for a milk cow for a year. Thus an acre of corn would represent 1 work unit and a milk cow 14 work units.

3. Work unit per worker - is a measure of the efficient use of labor on a farm.

4. Livestock increase - is the value of gross livestock sales less purchases and plus or minus changes in inventory values of livestock from the beginning to the end of the year.

5. Crop yield index - is a comparison of the yield per acre of all crops on a given farm or group of farms with the average yield of all crops for the entire group of farms studied. For example, a farm with a crop yield index of 105 means that the average yield for this farm is 5 per cent greater than the average.

6. Livestock returns per $100 feed fed - is a measure of the efficiency in converting feed into livestock products. It is obtained by dividing the value of the net livestock increase by the value of feed fed to all productive livestock during the year. This figure is multiplied by 100.

7. Part-owner - is a farmer who owns part of the land he operated and rents the rest.

Table 2. Summary of Farm Inventories, 1952 *

Item	Your Farm	Average of all Farms	10 Most Profitable Farms	10 Least Profitable Farms
Beginning				
Horses and mules	$____	91	33	37
Productive livestock (total)	$____	16,765	17,075	18,847
Cattle	____	10,815	10,281	13,023
Hogs	____	2,613	2,033	2,231
Sheep	____	3,094	4,515	3,334
Poultry	____	243	246	259
Feed and Seed	$____	5,453	6,298	5,473
Mach. & Equipment (total)	$____	6,163	6,776	5,347
Power Machinery	____	2,316	2,591	2,119
Crop and gen. mach.	____	3,532	3,979	2,911
Livestock equipment	____	315	206	317
Improvements (farm)**	$____	3,595	3,167	2,789
Land	$____	14,337	17,147	23,119
Total Farm Capital	$____	43,312	45,119	42,699
Ending				
Horses and mules	$____	97	27	59
Productive livestock (total)	$____	18,366	11,790	14,891
Cattle	____	8,860	8,997	8,422
Hogs	____	2,111	2,519	1,216
Sheep	____	1,180	1,314	5,000
Poultry	____	215	140	253
Feed and Seed	$____	5,660	7,522	4,588
Mach. and equipment (total)	$____	7,063	8,811	6,800
Power machinery	____	3,179	3,769	3,050
Crop and gen. mach.	____	3,562	4,762	3,445
Livestock equip.	____	322	280	305
Improvements (farm)**	$____	4,849	5,507	3,986
Land	$____	19,334	29,065	11,673
Total Farm Capital	$____	40,998	53,757	41,962

* The summaries of farm earnings and inventories were prepared as though the operators were all full owners. This has been done in order to more nearly compare all farmers on an equal basis. Each cooperator, however, received an earnings statement on the basis of his actual tenure situation and in Table 15 a comparison is made between owners, part-owners, and tenants. In order to eliminate "paper profits" due to inflation, livestock inventories were held constant. That is if "cows" were inventoried at the same figure at the end of the year.

** Does not include value of dwelling.

Table 3. Crop Acreage Summary, 1952

Item	Your Farm	Average of all Farms	10 Most Profitable Farms	10 Least Profitable Farms
Corn for grain	____	90	112	73
Sorghum forage	____	--	--	--
Corn and cane silage	____	13	05	07
Soybeans	____	21	03	09
Miscellaneous	____	--	--	--
Total Row Crops	____	104	121	90
Wheat	____	10	--	10
Oats	____	72	98	57
Barley	____	49	6	6
Rye-grain	____	--	--	--
Flax	____	15	2	3
Total Small Grain	____	78	113	69
Alfalfa hay	____	30	31	28
Other tame hay	____	11.2	4.5	1.6
Total Tame Hay	____	34	41	34
Rotation Pasture	____	24	5	13
Total Tame Hay & Past.	____	42	47	47
Idle and Fallow	____	18	5	--
Total Tillable Land	____	225	280	217
Native hay	____	18	--	7
Native pasture	____	37	45	24
Total Acres Operated	____	281	343	272
% of farm in cropland	____	78	80	80
% of cropland in row crops	____	47	43	43
% of cropland in sm. grain	____	34	39	33
% of cropland in hay & past.	____	18	16	22

Table 4. Crop Yield Summary, 1952

Item	Your Farm	Average of all Farms	10 Most Profitable Farms	10 Least Profitable Farms
Corn for grain	____	50	47	52
Soybeans	____	22	20	8
Wheat	____	11	--	1
Oats	____	43	41	44
Barley	____	23	--	4
Rye	____	--	--	--
Flax	____	11	11	2
Alfalfa hay	____	2.5	1.8	1.9
Other tame hay	____	2.2	2	2
Corn & Sorg. fodder	____	--	--	--
Silage	____	8.3	11.6	3.6
Native hay	____	1.8	--	.6

Table 5. Livestock Summary, 1952

Item	Your Farm	Average of all Farms	10 Most Profitable Farms	10 Least Profitable Farms
Horses	____	2	--	1
Beef cows	____	14	6	7
Other beef cattle	____	17.8	7.2	6.6
Milk cows	____	7	7	4
Other dairy cattle	____	6	3	1.6
Bulls	____	1	1	1
Ewes	____	58	4	28
Other sheep	____	275	--	82
Litters of pigs	____	18	18	7
Hens and Pullets	____	203	151	237
Total units prod. livestock*	____	53	47	60

* A unit of productive livestock is equal to one mature cow, 2 yearlings, 7 sheep, 14 lambs, 5 sows, 10 pigs or 100 hens.

Table 6. Summary of Farm Earnings, 1952

Item	Your Farm	Average of all Farms	10 Most Profitable Farms	10 Least Profitable Farms
CASH FARM RECEIPTS				
Hogs	____	4,844	5,288	4,276
Cattle	____	8,769	7,107	8,371
Dairy Products	____	1,157	1,335	377
Eggs	____	694	411	729
Poultry (includes turkeys)	____	152	56	159
Sheep and wool	____	1,832	111	1,136
Crops	____	2,593	3,760	1,136
Machinery & equipment	____	383	102	1,747
Farm program payments	____	206	153	5
Income from work off farm	____	246	72	69
Miscellaneous	____	433	275	522
(1) TOTAL FARM SALES	____	17,554	18,676	17,417
(2) Increase in inventories	____	6,969	8,071	1,563
(3) Family living from farm	____	515	434	634
(4) TOTAL FARM RECEIPTS (sum. 1-3)				
FARM EXPENSES	____	29,661	31,857	19,614
Auto (farm share)	____	327	364	154
Power, mach. & equip.(upkeep)	____	523	494	601
Power, mach. & equip. (new)	____	1,459	1,698	1,153
Farm Improvements (upkeep)	____	468	287	423
Farm Improvements (new)	____	567	141	511
Hired Labor	____	745	836	1,004
Crop expenses	____	655	568	1,001
Feed bought	____	3,312	2,482	4,935
Livestock bought	____	6,799	6,444	8,723
Other livestock expenses	____	300	222	306
Taxes	____	509	783	319
Insurance	____	184	206	154
Miscellaneous farm expenses	____	897	626	
(5) TOTAL FARM PURCHASES	____	16,278	16,484	18,397
(6) Decrease in inventories	____	5,782	420	4,239
(7) Board furnished hired labor	____	133	36	---
(8) Unpaid family labor ($150 per mo.)	____	1,334	1,427	770
(9) Interest on farm capital(5%)	____	1,897	2,357	2,016
(10) TOTAL FARM EXPENSES(sum 5-9)	____	22,311	21,873	23,825
(11) OPERATOR'S LABOR EARNINGS	____	1,181	9,984	8,417
(12) RETURNS TO CAPITAL & FAMILY LABOR (sum 8-11)	____	4,021	13,770	5,721

FACTORS CAUSING VARIATIONS IN EARNINGS

Looking over the combinations of enterprises which in 1951 and 1952 were most profitable we found the farms having the largest income in corn and other small grains. With the great decreases in cattle prices which we had in '51-52 it is not surprising that the cash grain farms are higher on the income than on livestock farms this particular year. We also found that the 10 most profitable farms had slightly more used hay than the average farm or the low income farms. They were slightly larger having 280 terrible acres as compared to 225 average of all farms and 217 for the terrible acres for the least profitable farms. As already suggested earlier they carry more inventories with the emphasis being on feed, seed, and machinery. Since they were able to carry forward slightly larger inventories of feed, they bought partly less feed than the average farm and considerably less than the least profitable farms; they also had slightly lower other livestock expenses which includes veterinary fees.

It was very interesting to notice that the most profitable farms had slightly more unpaid family labor. However, you will remember that this is computed on $150 per month per unpaid family worker, which indicates that here again perhaps we are arriving at that period when a larger farm family has an advantage. This is just a single year's observation and is not conclusive at all but is rather interesting to see. Those of you who remember last year's report remember that I cautioned against saying that the largest farm brought the most profit, because we may be going into a period in which the largest farm will bring the largest loss. It depends upon what is ahead of us and weather and prices. We are certain, with the present price squeeze likely to continue, that emphasis is going to be placed on good business management and good livestock crop programs.

Table 7. Farm Organization and Management Efficiency Factors, 1952

Item	Your Farm	Average of all Farms	10 Most Profitable Farms	10 Least Profitable Farms
Operator's Labor Earnings	$____	1,181	9,984	-8,417
Total operated	____	281	343	272
Capital Investment				
Total capital managed	$____	40,988	53,757	41,962
Productive livestock	$____	18,366	11,790	14,891
Power and machinery	$____	7,063	8,811	6,800
Rate earned on investment	____	16.8	18.6	3.1
Size of Business				
*Work units (total)	____	472	507	427
On crops	____	164	193	154
On livestock	____	308	313	272
Labor Utilization				
Number of workers	____	1.3	1.4	1.2
*Work units per worker	____	373	364	361
Crop acres per worker	____	171	191	177
Animal units per worker	____	44	33	51
Livestock increase per worker	____	7,007	8,789	3,944
Crop Organization and Efficiency				
Total tillable land	____	225	280	217
% cropland is of farm	____	78	80	80
% cropland in row crops	____	47	43	43
% cropland in small grain	____	34	39	33
% cropland in hay & pasture	____	18	16	22
Livestock Organization and Efficiency				
Number of beef cows	____	14	6	7
Number of milk cows	____	7	7	4
Number of ewes	____	58	4	28
Number of litters of pigs	____	18	18	7
Number of hens	____	203	151	237
*Total prod. livestock units	____	53	47	60
*Livestock ret. per $100 feed	$____	108	140	66
Pounds butterfat per cow	____	244	127	45
Eggs laid per hen	____	144	80	60
Pigs saved per litter	____	7.3	7.2	7.3
Power, Mach. & Equipment				
Power invest. per crop acre	$____	14.12	13.46	14.05
Crop mach. inv. per crop acre	$____	15.83	17.00	15.87

* Measures used on thermometer chart on page 12.

THERMOMETER CHART

Compare your forms with others in your area on each of the factor thermometers.

The average for the group is shown by the dark lines.